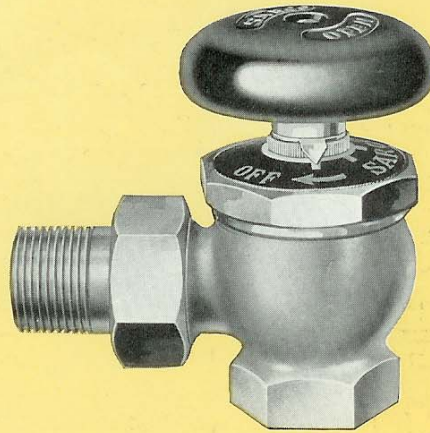
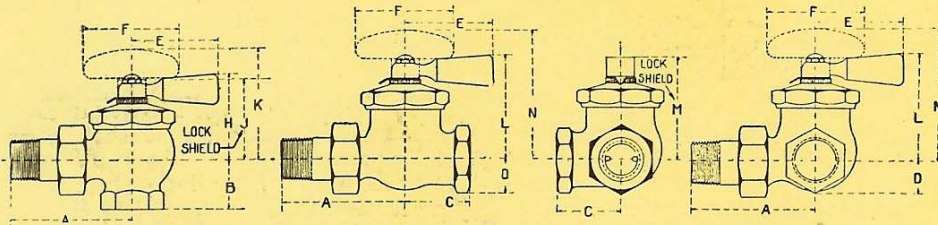


SARCO Bellows-Packless Valves

Outside view of valve showing standard composition handle.

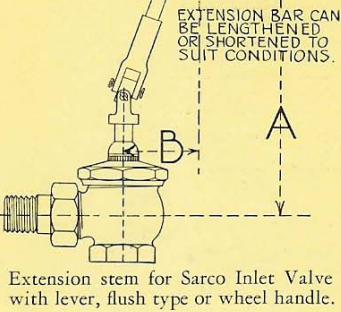
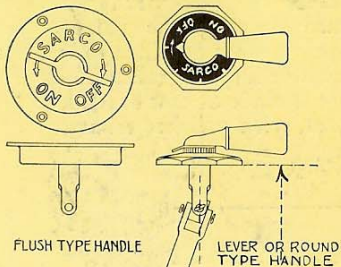


Also furnished with Lock Shield for Key operation.



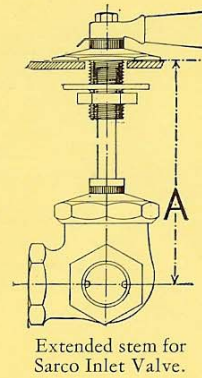
ROUGHING-IN DIMENSIONS INCHES

Size	A	B	C	D	E	F	H	J	K	L	M	N
1/2	2 3/4	1 1/4	1 1/16	1 1/16	2 3/8	2 3/8	2 3/16	2	2 13/16	2 11/16	2 1/2	3 1/16
3/4	3	1 1/4	1 1/16	1 3/16	2 3/8	2 3/8	2 3/16	2	2 13/16	2 11/16	2 1/2	3 1/16
1	3 3/16	1 1/2	1 3/4	1	2 3/8	2 3/8	2 5/16	2 1/8	2 15/16	2 11/16	2 1/2	3 1/16
1 1/4	3 1/2	1 5/8	..	..	2 3/8	2 3/8	2 5/8	2 7/16	3 1/16	..	..	..
1 1/2	3 3/4	1 3/4	..	..	2 3/8	2 3/8	2 5/8	2 7/16	3 1/2	..	..	..



Sarco Orifice Plates

Sarco Orifice Plates can be supplied for close control of steam supply to individual radiators. Their use secures a perfectly balanced system and effects substantial economies. Full information on request.



• Write for List Prices and Discounts •

it flows by gravity into the boiler. When the water level falls, the float drops. The steam pressure is cut off and at the same time the boiler return trap is vented to the return line.

Two types are available. Nos. 31 and 32, Fig. 1, for small systems are of the enclosed type. A heavy copper float rises in a cast iron chamber as water accumulates, until a heavy weight is tripped. The weight actuates two tappet valves mounted on top of the receiver. The one to the left in Fig. 1 is an air vent which remains open until the weight trips. The one on the right is connected to the steam space in the boiler. When this valve opens as the weight falls, pressure in the receiver is equalized with that in the boiler and water then flows to the boiler by gravity. The valves remain locked positively in this position until the receiver is empty, when their position is again reversed.

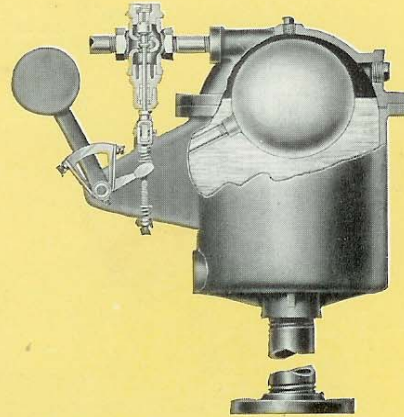
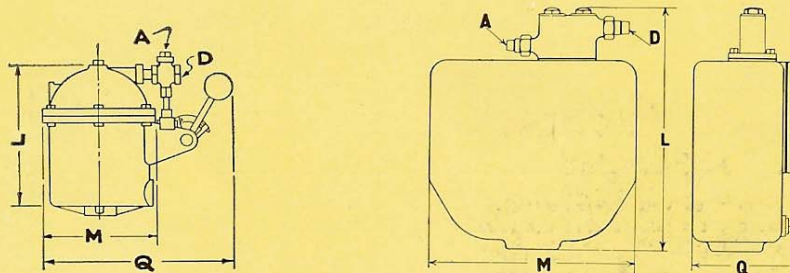


Fig. 2—SARCO ALTERNATING RECEIVER
External Valve Type, Nos. 70-73, for Large
Vapor Systems and Pressures not exceed-
ing 20 lbs.

Fig. 2 shows the external valve type which is used for larger installations. The principle of operation is the same, but the weight and lever mechanism and the valve are located outside of the receiver. The valve is of the three-way type, so arranged that the air vent is closed as the steam pressure is admitted on top of the water in the receiver.



CAPACITIES AND DIMENSIONS

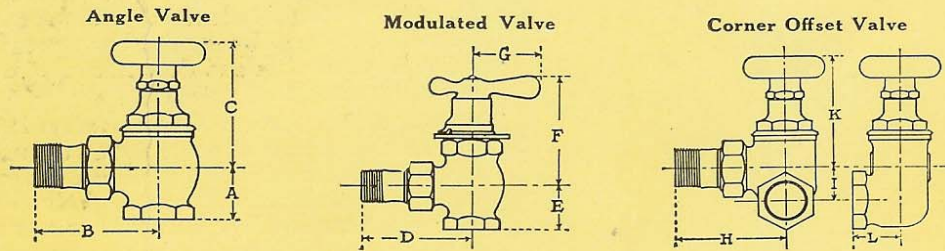
Type No.	Rating Square Feet Direct Radiation	Inlet and Outlet Pipe Size Inches	Steam Pressure Connection D	Vent Line Connection A	Height Overall L	Width Overall Q	Length or Diameter Overall M	Shipping Weight Lbs.
31	1,500	1½"	½"	½"	16"	6⅞"	13"	82
32	2,500	2"	¾"	½"	16⅝"	7⅞"	13¾"	90
70	5,000	1½"	¾"	½"	17"	20"	13½"	180
71	8,000	2"	1"	¾"	20½"	26"	15"	240
72	15,000	2½"	1¼"	¾"	25"	29"	17"	350
73	25,000	3"	1¼"	¾"	29¼"	33"	20"	550

The capacities in this table are based on one operation per minute and a condensation rate of ¼ lb. per sq. ft. per hour. Above ratings are total radiation including risers and mains.

• Write for List Prices and Discounts •

Roughing-In Dimensions

Sarco-Marsh Radiator Valves



Size	A	B	C	D	E	F	G	H	I	K	L
1/2"	1 1/8"	2 3/8"	3 3/8"	2 3/4"	1 1/8"	3 1/16"	2"	2 9/16"	3/4"	3"	1 1/2"
3/4"	1 1/4"	2 9/16"	3 1/2"	2 9/16"	1 1/4"	3 1/8"	2"	2 3/4"	1"	3 1/2"	1 5/8"
1"	1 3/8"	3 1/16"	3 1/2"	3 1/16"	1 3/8"	3 3/16"	2"	3 1/8"	1 5/32"	3 23/32"	1 3/4"
1 1/4"	1 5/8"	3 1/2"	4"	3 1/2"	1 5/8"	4"	2 3/8"	3 9/16"	1 3/16"	4 3/8"	2"
1 1/2"	1 13/16"	3 3/4"	4"	3 3/4"	1 13/16"	4 1/8"	2 3/8"	3 1/2"	1 1/2"	4 7/8"	2 1/4"
2"	2 1/4"	4 1/8"	5 1/4"	.....	.....	.....	.....	4 1/4"	1 11/16"	5 13/16"	2 5/8"

Globe valves are of the same dimensions as corner offset valves.

SARCO Alternating Receiver

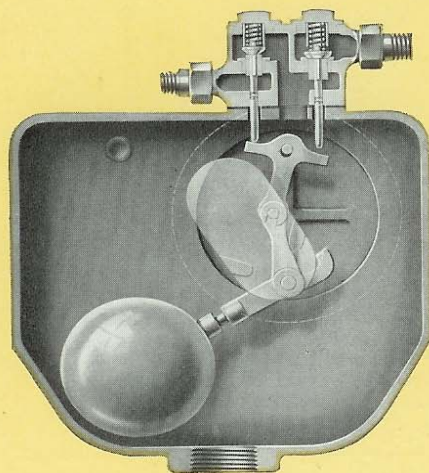


Fig. 1—SARCO ALTERNATING RECEIVER

Enclosed Type, Nos. 31 and 32, for Vapor Systems up to 2,500 sq. ft. of radiation and pressures not exceeding 20 lbs.

IT is essential that proper provision be made to return the water of condensation to the boiler under all pressure conditions.

As the pressure in the boiler increases, the static head available to force the condensation into the boiler will not be great enough in most cases except by flooding the return mains and even the steam supply lines. This can result in a dry boiler and cracked sections. The boiler return trap, or alternating receiver, returns this condensation by means of an automatic equalizing valve operated by a ball float. As the float rises due to water building up in the returns, the automatic valve is opened so as to cause full boiler pressure to be exerted on top of the water. As the condensation cannot back into the return line, because of a check valve,

Sarco Heating Systems

AS pioneers in the introduction of thermostatic devices, Sarco Company offers to the Heating Industry a complete line of specialties, the use of which, in accordance with our directions, assures heating systems of utmost simplicity, high efficiency and trouble-free durability.

For the convenience of Architects and Contractors, Sarco maintains a competent force of practical heating engineers, who are available for consultation as to the best system to suit given conditions. They will be glad to assist clients with special details of application and to furnish information, based upon long and varied experience, on any phase of vapor or vacuum heating.

Sarco Company also maintains an organization of Service Engineers whose duty it is to see that entirely satisfactory service is obtained.

All Sarco Products are guaranteed against defects in material or workmanship, and may be returned within one year from date of purchase, for free repair or replacement, f. o. b. our factory, if a defect should be found. Careful testing of every trap and valve, upon specially constructed test racks at our factory, guarantees faultless performance and absolute tightness.

Sarco Vacuum and Vapor Heating Systems are installed in many hundreds of the finest commercial, public and industrial buildings in the country—Sarco Specialties are specified by foremost Architects and Heating Engineers. They may be used with complete confidence.

The Sarco Vacuum Heating System

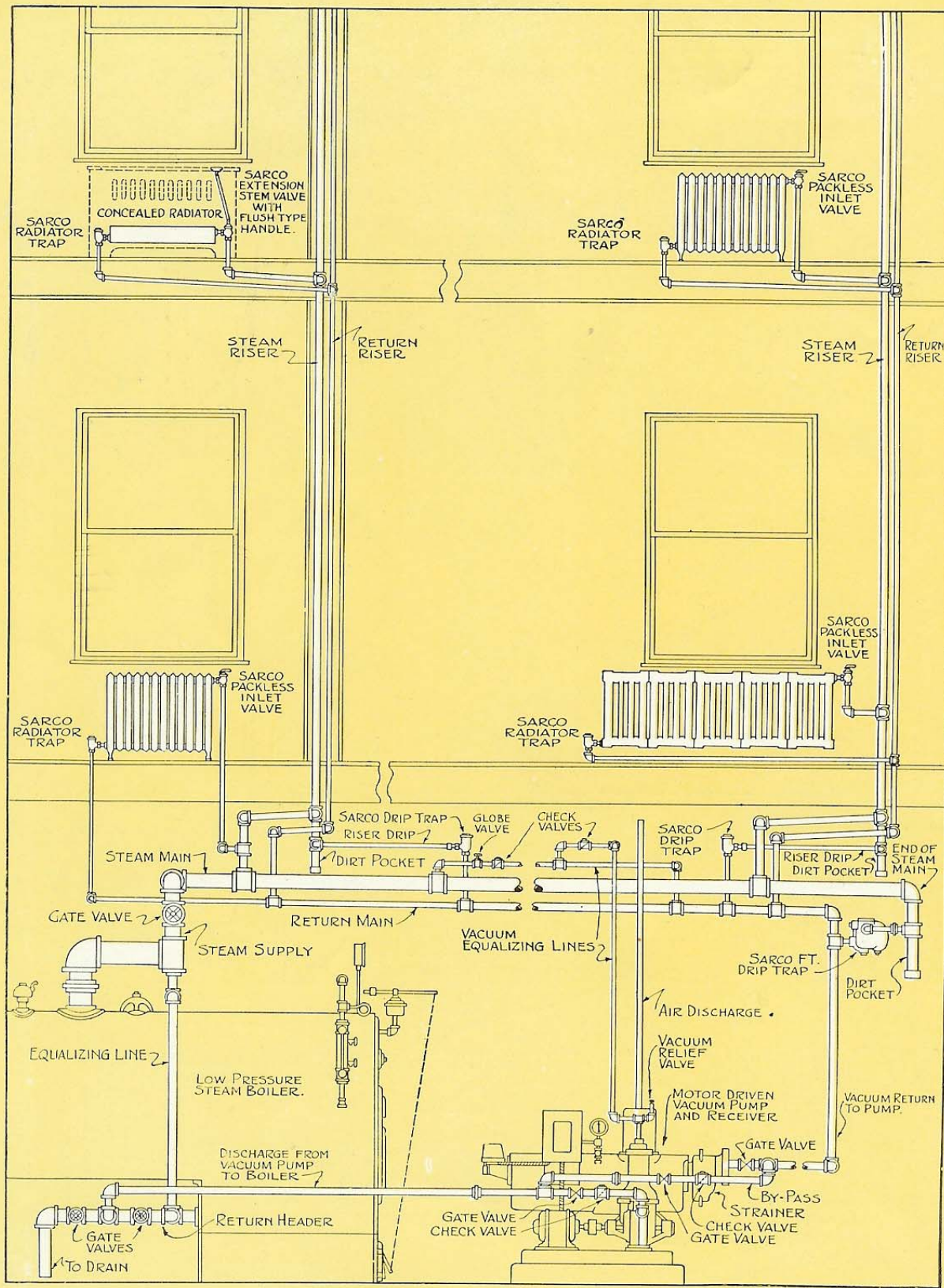
THE diagram opposite illustrates a typical vacuum system, arranged for the effective use of Sarco specialties. In this type of system, steam under slight pressure is supplied to each radiator through a regulating or modulating valve at one end.

A Sarco Trap, attached to the opposite end of the radiator, removes air and the water of condensation. A vacuum pump, installed in the basement and connected to the return piping, maintains a free flow of condensate under vacuum, and returns the water of condensation to the boiler.

The Sarco Inlet Valve permits of exact modulation of the steam to the actual heat requirements, while the Sarco Trap removes air and water quickly and completely, without permitting steam to escape to the return piping. The arrangement assures a perfectly noiseless system.

Sarco Inlet Valves, Radiator Traps and other accessories are described fully on succeeding pages.

For a complete description of the Sarco Vapor System, see following pages.



A TYPICAL SARCO VACUUM HEATING SYSTEM

The SARCO Vapor Heating System

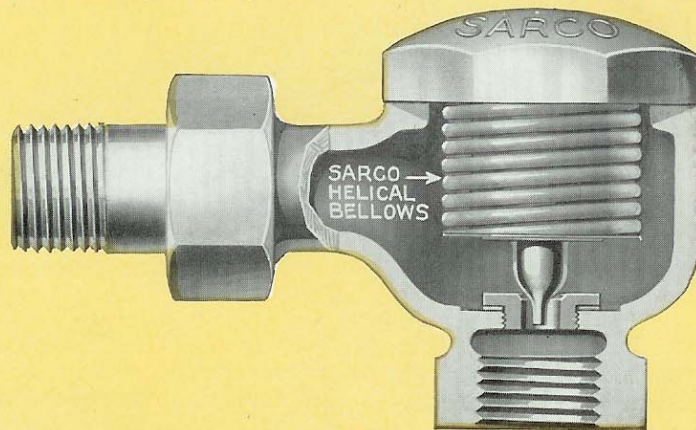
THIS system, of which an example is illustrated opposite, was designed to bring to the smaller residential or commercial building the benefits of scientific vapor heating, without the high cost or complications of older systems.

It is a two-pipe system of the utmost simplicity, requiring merely a supply line to the radiators and a separate return for the air and water of condensation. Air and condensate are removed quickly by Sarco

Traps. The flow of steam to the radiator is regulated or modulated by Sarco Inlet Valves.

Air is ejected from the system at one point in the basement. All condensation is returned to the boiler automatically.

The system is sealed and completely automatic. It never requires more than a few ounces of pressure and normally operates under actual vacuum. It is ideal for the modern fuels and the use of automatic controls.

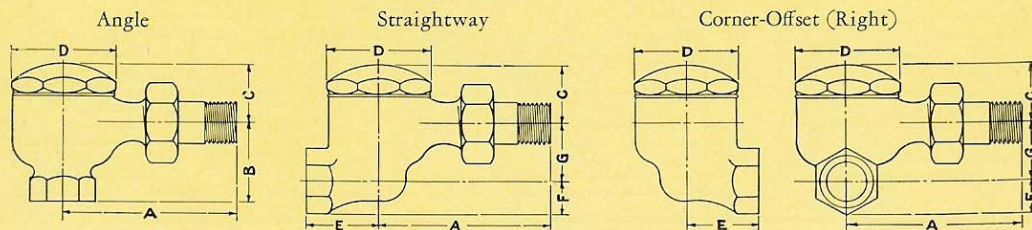


Sarco Radiator Trap, Type H, angle pattern, for Vapor, Vacuum and Low Pressure Heating Systems (up to 15 lbs.). Also available in right and left offset and straightway patterns.

The Sarco Radiator Trap differs from all similar devices in the unique design of its thermostatic element. This consists of a vapor tension bellows formed from a single piece of seamless, helically corrugated, bronze tubing of large diameter and heavy wall. The helical form of the deep corrugations insures even distribution of the strain over

the entire length of the bellows, thus securing long life. The valve head is of the self-aligning type, assuring perfect seating. The seat is renewable. The body and cap are of cast brass, nickel finish with polished trimmings. These traps may be subjected for short periods to much greater pressures without injury.

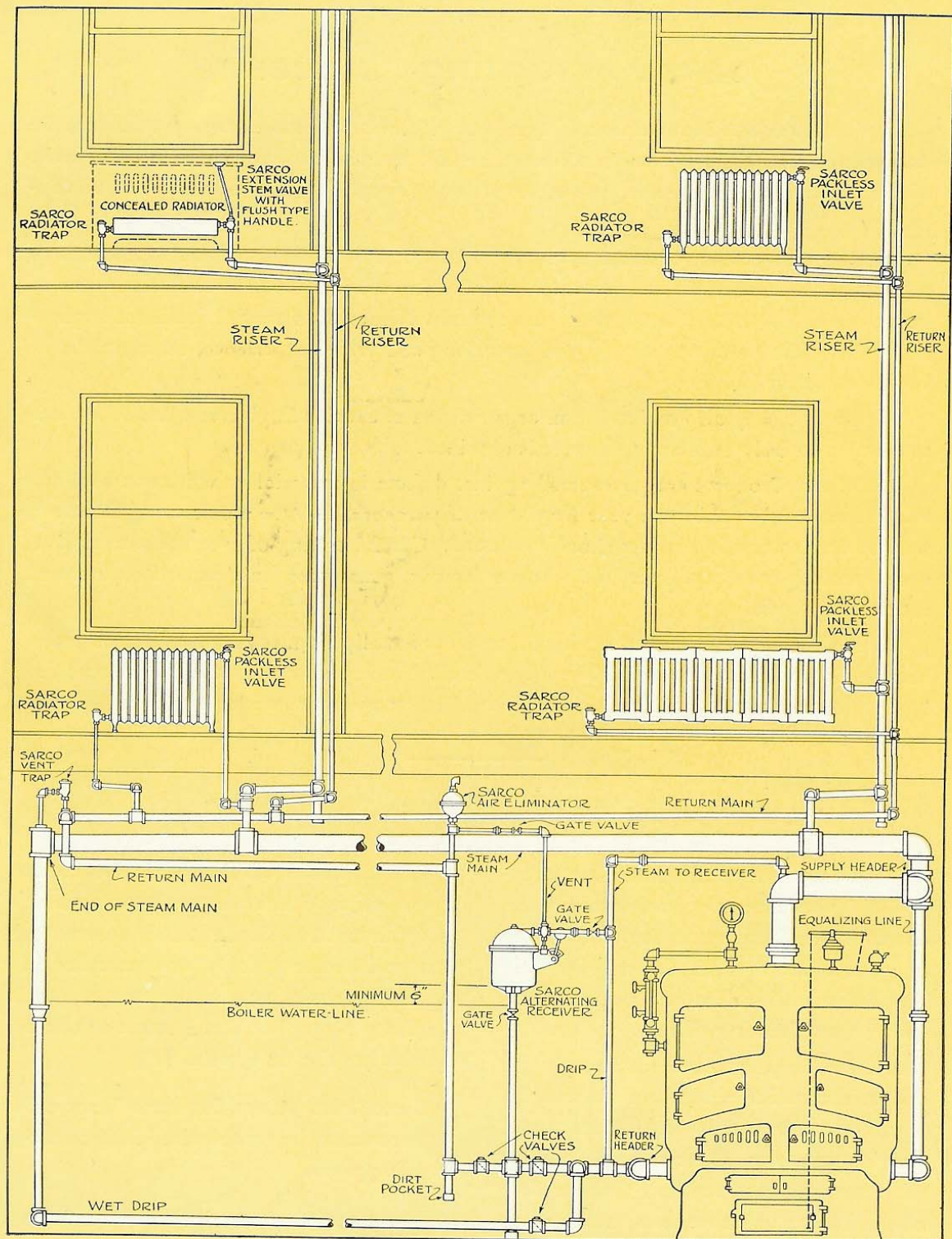
Roughing-In Dimensions



Size	DIMENSIONS							CAPACITY at 1½ lbs. Differential	Shipping Weight Lbs.
	A	B	C	D	E	F	G		
*1½"H	3⅝"	1½"	1¼"	2"	1⅜"	5⁄8"	1⅛"	200 Sq. Ft.	2
¾"H	3⅝"	1½"	1¼"	2"	1⅜"	¾"	1⅛"	400 Sq. Ft.	2

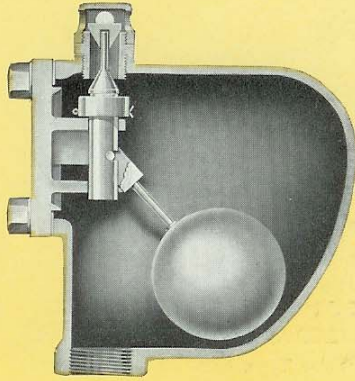
*This trap can be furnished with ½" inlet and ¾" outlet at same price.

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A TYPICAL SARCO VAPOR HEATING SYSTEM

SARCO Air Eliminators



SARCO AIR ELIMINATOR

Type 12, capacity 15,000 sq. ft.
Provided with tapping for equalizing
connection to steam main.

SARCO Air Eliminators for Vapor Systems serve the purpose of venting air from radiators and piping at one central point in the basement.

This method assures rapid and complete removal of all air, so that radiators can heat up quickly at minimum steam pressures.

It eliminates also any danger of damaging floors, rugs or draperies by water, as often happens where individual vent valves are used on the radiators.

Two sizes are available, No. 6 for systems up to 2,500 sq. ft. of radiation, No. 12 for larger systems, up to 15,000 sq. ft. Construction of both is similar.

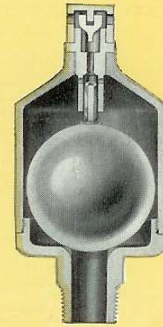
A float contained in a float chamber controls the outlet valve which is normally open. Air is blown out against a very light check valve which prevents the sucking in of air when the system is under vacuum.

Should water arrive in the chamber, the float will lift, close the valve and thus prevent escape of the water.

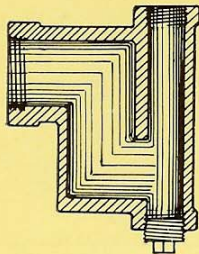
CAPACITIES AND DIMENSIONS

Type No.	Size of Inlet	Overall Height	Overall Width	Capacity in sq. ft. of Radiation	Shipping Weight
6	$\frac{3}{4}$ "	$6\frac{3}{16}$ "	$3\frac{1}{8}$ "	2,500	3 lbs.
*6T	$\frac{3}{4}$ "	$7\frac{1}{16}$ "	$3\frac{1}{8}$ "	2,500	3 lbs.
12	1"	$7\frac{1}{8}$ "	$6\frac{1}{2}$ "	15,000	8 lbs.

*Type 6T is equipped with thermostatic element in addition to float, to close the valve in the event steam reaches the eliminator. Recommended for one-pipe systems only.



SARCO AIR ELIMINATOR
Type 6, capacity 2,500
sq. ft.



SARCO LIFT FITTING

SARCO Lift Fittings

LIFT fittings are used in the return mains of vacuum systems wherever the return lines rise or where the pump is located above the return main. The fitting forms a reservoir in which water can collect, to be lifted out by the vacuum. In this way the return main is kept clear of water at all times. By dividing a high lift into several steps, with a lift fitting at each step, higher lifts can be handled at a given vacuum.

Sarco lift fittings are available for pipe sizes $\frac{3}{4}$ " to 8".

• Write for List Prices and Discounts •